

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 30 AUG 2005

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Applicant's or agent's file reference 63213C	FOR FURTHER ACTION	
International application No. PCT/US2004/027593	International filing date (day/month/year) 25.08.2004	Priority date (day/month/year) 25.08.2003
International Patent Classification (IPC) or national classification and IPC C08J9/00		
Applicant DOW GLOBAL TECHNOLOGIES INC. et al.		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 10 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☐ sent to the applicant and to the International Bureau) a total of sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in Item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

Date of submission of the demand 09.06.2005	Date of completion of this report 29.08.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Glomm, B Telephone No. +49 89 2399-7158 

**INTERNATIONAL PRELIMINARY REPORT
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Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-35 as originally filed

Claims, Numbers

1-36 as originally filed

Drawings, Sheets

1/1 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
- ☐ the entire international application,
 - ☒ claims Nos. 5-23, 26-28, 36
because:
 - ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
 - ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
 - ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
 - ☒ no international search report has been established for the said claims Nos. 5-23, 26-28, 36
 - ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
 - the written form ☐ has not been furnished
 - ☐ does not comply with the standard
 - the computer readable form ☐ has not been furnished
 - ☐ does not comply with the standard
 - ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
 - ☒ See separate sheet for further details

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Box No. IV Lack of unity of invention

1. ☒ In response to the invitation to restrict or pay additional fees, the applicant has:
- ☐ restricted the claims.
 - ☐ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☒ neither restricted nor paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with.
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
 - ☒ the parts relating to claims Nos. 1-4, 24, 25, 29-35 .

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-4, 24, 25, 29-35
Inventive step (IS)	Yes: Claims	
	No: Claims	1-4, 24, 25, 29-35
Industrial applicability (IA)	Yes: Claims	1-4, 24, 25, 29-35
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Cited documents:

- D1: WO 98/52997 A (ORBSEAL LLC ; TAYLOR DONALD (US); PACHL JEFFREY T (US)) 26 November 1998 (1998-11-26)
- D2: US-A-4 540 718 (SENDA KENICHI ET AL) 10 September 1985 (1985-09-10)
- D3: US-A-4 045 378 (MAXWELL CLIFFORD J) 30 August 1977 (1977-08-30)
- D4: US-A-4 001 158 (LINDEMANN MARTIN K) 4 January 1977 (1977-01-04)
- D5: US-A-3 740 353 (PATRICK F ET AL) 19 June 1973 (1973-06-19)

1. Unity (Art. 3, section 4, item (iii) PCT)

The present application lacks unity (Art. 3, section 4, item (iii) PCT), the reasons for the objection being pointed out in detail in the separate sheet attached to the corresponding international Search Report.

In the European regional phase, if any, the applicant is asked to state upon which invention further prosecution of this application should be based and to limit the application accordingly. Other inventions are to be excised from the claims, description and drawings. The subject-matter to be excised then may be made the subject of one or more divisional applications.

The present examination will focus on the subject matter of invention (I) corresponding to claims 1 to 4, 24, 25 and 29 to 35, respectively.

2. Novelty (Art. 33 (2) PCT)

Each of cited documents D1 to D5 discloses an aqueous froth comprising as essential components (a) one or more copolymers or interpolymers of ethylene and/or 1-propene, (b) water, (c) a surfactant, and (d) a gas, as specified in detail in present independent main claim 1 (for relevant passages, see the corresponding International Search Report).

The attention of the applicant is drawn especially to the fact, that the terms as specified in the last three lines of present independent main claim 1 appear to be implicitly disclosed by each of said documents D1 to D5 in view of the principles of the established official rules of practice. Implicit disclosure corresponds to the fact, that the claimed product is regarded as being anticipated actually by said prior art documents, even if the claimed parameters or terms as specified in the said last three lines of present main claim 1 are not expressly mentioned therein, i.e., the parameters or terms are regarded as being actually present in the prior art embodiments, but simply not determined and/or mentioned expressly therein.

The considerations of the applicant in the letter dated 09.06.2005 are not convincing for the following reasons:

- 1.) As regards the repeated discussion of process-related features and/or -advantages, the attention of the applicant is drawn to the fact, that present claim 1 is a (still very generally worded) product-claim, based on a "comprising"-wording, which does not exclude any further additives or components.
- 2.) Furthermore, for sake of completeness, even the addition of process-related

features to such a product-related claim may not render such claim novel, unless the product as such is not anticipated.

3.) Features appearing only in dependent claims (or optional features of independent claims, see claim 1, line 2: " ... with or without ... ") will never render any claim novel.

4.) Discussion of any specific advantages and/or unexpected effects of the claimed subject matter as repeatedly done in applicant's said letter is a question of inventiveness assessment only, and may also never render any claims novel.

5.) The disclosure of a prior art document is not to be limited unduly to the examples or preferred embodiments. Actually, the viewpoint of an average person skilled in the art when reading the whole document in its entirety is decisive.

6.) The objection of implicit disclosure as pointed out in section 2, second paragraph of previous written opinion was not addressed at all in applicant's letter. Implicit (or inherent) disclosure corresponds to the fact, that the claimed product may be regarded as being anticipated actually by each of said prior art documents, even if the claimed parameters or terms as specified in the said lines of present main claim 1 are not expressly mentioned therein, i.e., the parameters or terms are regarded as being actually present, but simply not determined and/or mentioned expressly.

The applicant therefore failed to prove clearly, that there is any difference between the claimed subject matter, on the one hand, and the subject matter as disclosed in the said prior art references. This objection could be overcome by arguments which specify such a difference exactly, e.g., by provision of suitable comparison experiments or similar, additional technical information.

Consequently, each of said documents D1 to D5 anticipates the subject matter of present claim 1.

The same considerations also relate to the additional features of the following claims 2 to 4, 24, 25 and 29 to 35, respectively, when taking into account the full disclosure of each of said documents D1 to D5.

Therefore the subject matter of present application is not new in view of the disclosure of each of said documents D1 to D5.

3. Inventive Step (Art. 33 (3) PCT)

Providing an amended main claim which meets the requirements of Art. 33 (2) PCT, the applicant should relate the distinguishing feature to a surprising (unexpected) technical effect or make credible or plausible that the distinguishing feature is not derivable from the prior art teaching (Art. 33 (3) PCT).

4. Miscellaneous

The terms as specified in the last three lines of present main claim 1 appear to attempt a definition of the subject matter to be protected by means of the corresponding results to be achieved, rather than by means of clear and unambiguous technical features, such violating the Art. 6 PCT. Furthermore, the said terms represents not a clear and unambiguous technical feature, but a relative term having no clear and unambiguous meaning among the average persons skilled in the art. The applicant therefore is invited to replace said objected terms by clear and unambiguous technical features based on suitable subclaims or relevant passages taken from the present description.

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(SEPARATE SHEET)**

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Present application includes totally 8 independent claims, i.e., 1, 5, 23, 24, 26, 28, 29 and 36, respectively. The attention of the applicant is drawn to the established official practice, that an application generally should not contain more than one independent claim in a particular category. Consequently, the present set of claims will lead to a refusal of the application in the subsequent, European regional stage, if any (Art. 84 in combination with Rule 29 (2) EPC).

In order to improve the understanding and legibility of the application, in the European regional phase, if any, the applicant is invited to identify the documents D1 to D5 in the description additionally and briefly discuss the relevant background art disclosed therein.

When filing amendments, any undue extension of the scope of the application should be avoided.